

BARRIERS IN ACCESSIBILITY OF DENTAL AND ORAL HEALTH SERVICES FACILITIES DURING THE COVID-19 PANDEMIC AT WEST DENPASAR II HEALTH CENTER BALI INDONESIA

HAMBATAN DALAM AKSESIBILITAS FASILITAS PELAYANAN KESEHATAN GIGI DAN MULUT PADA MASA PANDEMI COVID-19 DI PUSKESMAS DENPASAR BARAT II BALI INDONESIA

Farah Mega Atsila¹, Putri Rejeki^{1*}, Desak Ayu Dhyana Nitha Dewi ¹, Putu Ratna Kusumadewi Giri¹

¹Faculty of Medicine, Universitas Udayana, Bali, Indonesia

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*Corresponding author

drgputrirejeki@unud.ac.id

ABSTRACT

Accessibility of dental and oral health service facilities factors by three indicators, namely indicators of availability, barriers and utilization. Barrier indicators cause delays or difficulties for people in accessing these facilities. Physical barriers, economic barriers, and geographical barriers influence barrier indicators. Based on preliminary data collection from the Bali Provincial Health Service, the West Denpasar II Community Health Center, we experienced a significant decline in visitors during the COVID-19 pandemic. This research aims to determine the barriers to accessibility of dental and oral health service facilities during the COVID-19 pandemic at the West Denpasar II Health Center and to determine the influence of the COVID-19

pandemic on barriers to accessibility of dental and oral health service facilities at the West Denpasar II Health Center Indonesia. This research uses quantitative analytical methods with a retrospective approach. The sample for this research was visitors to the West Denpasar II Community Health Center who met the inclusion criteria, totalling 134 respondents. Samples used non-probability sampling techniques with consecutive sampling types. The research results stated that during the COVID-19 pandemic, the accessibility of dental and oral health service facilities at the West Denpasar II Health Center was in the relatively easy access category, and obstacles in the accessibility of dental and oral health service facilities at the West Denpasar II Health Center were in the hampered category. Based on the results of correlation tests between barrier factors and accessibility factors for dental and oral health service facilities during the COVID-19 pandemic, these two factors did not have a significant relationship. The research conclusions show that there were obstacles in the accessibility of dental and oral health service facilities during the COVID-19 pandemic at the West Denpasar II Health Center, and there was no influence between the COVID-19 pandemic and obstacles in the accessibility of dental and oral health service facilities at the West Denpasar II Health Center Indonesia.

Keywords: accessibility; barrier factors; COVID-19 pandemic

ABSTRAK

Aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut dipengaruhi oleh tiga indikator yaitu indikator ketersediaan, hambatan, dan pemanfaatan. Indikator hambatan menyebabkan terhambatnya atau sulitnya masyarakat dalam mengakses fasilitas tersebut. Indikator hambatan dipengaruhi oleh hambatan fisik, hambatan ekonomi, dan hambatan geografis. Berdasarkan pengambilan data pendahuluan dari Dinas Kesehatan Provinsi Bali, Puskesmas Denpasar Barat II Indonesia mengalami penurunan pengunjung yang signifikan pada saat pandemi COVID-19. Penelitian ini bertujuan untuk mengetahui

hambatan dalam aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut pada masa pandemi COVID- 19 di Puskesmas Denpasar Barat II dan untuk mengetahui pengaruh pandemi COVID- 19 terhadap hambatan aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut di Puskesmas Denpasar Barat II. Penelitian ini menggunakan metode kuantitatif analitik dengan pendekatan retrospektif. Sampel penelitian ini adalah pengunjung Puskesmas Denpasar Barat II yang sesuai dengan kriteria inklusi sebanyak 134 responden. Sampel diambil menggunakan teknik non probability sampling dengan jenis consecutive sampling. Hasil penelitian menyatakan bahwa pada saat pandemi COVID- 19 aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut di Puskesmas Denpasar Barat II masuk dalam kategori akses cukup mudah dan hambatan dalam aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut di Puskesmas Denpasar Barat II masuk dalam kategori terhambat. Berdasarkan hasil uji korelasi antara faktor hambatan dengan faktor aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut pada masa pandemi COVID- 19 didapatkan hasil bahwa kedua faktor tersebut tidak memiliki hubungan yang signifikan. Simpulan penelitian menunjukkan adanya hambatan dalam aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut pada masa pandemi COVID- 19 di Puskesmas Denpasar Barat II dan tidak terdapat pengaruh antara pandemi COVID- 19 terhadap hambatan dalam aksesibilitas fasilitas pelayanan kesehatan gigi dan mulut di Puskesmas Denpasar Barat II Indonesia.

Kata kunci: aksesibilitas; faktor hambatan; pandemi COVID- 19

INTRODUCTION

In December 2019, there was a new outbreak in Wuhan, the cause of which was unknown. This outbreak was a pathogen identified as belonging to the coronavirus family, Corona Virus Disease (COVID-19).

This outbreak spread rapidly worldwide and was declared a pandemic on March 11 2020, by WHO.^{1,2} This outbreak emerged in Indonesia in March 2020 and spread rapidly in Indonesia, so the government took firm steps by urging the public to comply with

applicable health protocols. The pandemic has disrupted several sectors, including dental and oral health services and community health centres, because dental and oral health services have a high potential for causing viruses through droplets/sprays of patient saliva.³ Based on a circular issued by the Indonesian Dentists Association (PDGI), the public can access dental and oral health service facilities using PPE following their primary functions and duties.⁴

The existence of restrictions on the accessibility of dental and oral health services during the COVID-19 pandemic caused a decline in people's dental and oral health. Accessibility to health services is the ability of each individual to seek the health services they need. Access to dental and oral health services is affected by three indicators, namely supply indicators (availability), barriers (barriers), and demand (utilization). Utilization factors include the number of visits, population, and emergency department utilization. Availability factors include the number of general practitioners, number of service facilities, and number of specialist doctors, and the barrier factor is by three things, namely physical barriers in the form of transportation, economic obstacles in the form of insurance ownership and ability to pay. , and geographical barriers in the form

of proximity to available health facilities.⁵

Based on preliminary data collected from the Bali Provincial Health Service regarding the number of visits to dental and oral health service facilities, the results showed that the community health centre that experienced a significant decrease in visitors was West Denpasar II Health Center, from 6994 visitors to 2205 visitors. Therefore, based on this description, researchers are interested in examining obstacles in the accessibility of dental and oral health service facilities during the COVID-19 pandemic at the West Denpasar II Community Health Center.

METHOD

This research used quantitative analytical methods with a retrospective approach with 134 respondents who met the inclusion criteria. Samples used non-probability sampling techniques with consecutive sampling types. This research uses a research instrument in the form of a questionnaire, tested for validity and reliability. The validity test used the Statistical Package for The Social Science (SPSS) using Pearson's Product Moment correlation formula. Reliability testing used SPSS with Cronbach's Alpha formula.⁶

Data from this research will be analyzed using univariate and bivariate analysis. Univariate analysis analyzed the

sociodemographic characteristics, description of barrier factors, and description of accessibility factors for dental and oral health service facilities during the COVID-19 pandemic and bivariate analysis analyzed barrier factor variables and accessibility variables for dental and oral health service facilities during the COVID-19 pandemic. Before the bivariate analysis, a normality test and the One-Sample Kolmogorov-Smirnov Test. After the normality test, a bivariate test was the Spearman's Rank correlation test.^{7,8}

RESULT

The research data results were taken from December 2022 to March 2023 at the West Denpasar II Community Health Center. Data was used in a paper questionnaire tested for validity and reliability. Respondents in this study were visitors to the West Denpasar II Community Health Center who met the inclusion and exclusion criteria.

Based on Table 1, the majority of respondents were 94 female, 111 respondents aged 26-61 years, 72 respondents had a high school/D1 education level, 64 respondents had other jobs, and a socioeconomic status equal to the minimum wage of 87 respondents.

| | | |
|-------------|----|-------|
| HIGH SCHOOL | | |
| SMA/D1 | 72 | 53.7% |
| D3/S1 | 19 | 14.2% |

Table 1. Sociodemographic characteristics

Based on Table 2, most respondents have health insurance; 116 and 114 respondents use BPJS insurance.

Table 2. Characteristics of respondents health insurance ownership

| Characteristics | n | % (Percentage) |
|----------------------------|-----|----------------|
| Health Insurance Ownership | | |
| Yes | 116 | 86.6 |
| No | 18 | 13.4 |
| Types of Health Insurance | | |
| BPJS Health | 114 | 98.3 |
| Private insurance | 2 | 1.7 |

| | | |
|-----------------------|----|-------|
| Work | | |
| Doesn't work | 39 | 29.1% |
| Civil servant/retired | 1 | 0.7% |
| Labourer | 9 | 6.7% |
| Private | 21 | 15.7% |
| Other | 64 | 47.8% |
| Socioeconomic | | |
| Above the UMR | 17 | 12.7% |
| Same as UMR | 87 | 64.9% |
| Below UMR | 30 | 22.4% |

Based on Table 3, the majority of respondents felt hampered when accessing dental and oral health service facilities, 93 respondents.

Table 3. Overview of barrier factors

| Characteristics | n | % (Percentage) |
|-----------------|----|----------------|
| Barrier Factors | | |
| Very hampered | 39 | 29.1 |
| Hampered | 93 | 69.4 |
| Quite hampered | 2 | 1.5 |
| Not Obstructed | 0 | 0 |
| Uninhibited | 0 | 0 |

Based on Table 4, the majority of respondents felt that access to dental and oral health service facilities was relatively easy during the COVID-19 pandemic, with 55 respondents.

Table 4. Overview of accessibility factors for dental and oral health service facilities during the COVID-19 pandemic

| Characteristics | n | % (percentage) | Cumulative Percentage |
|--|----|----------------|-----------------------|
| Accessibility Factors for Dental and Oral Health Service Facilities During the COVID-19 Pandemic | | | |
| Difficult Access | 7 | 5.2% | 5.2% |
| Quite Easy Access | 72 | 53.7% | 59% |
| Easy Access | 55 | 41% | 100% |

Table 5 shows that the p-value obtained is 0.000 or $p < 0.005$, which means the data is abnormal.

Table 5. Normality Test Results

| Variable | P value |
|---|---------|
| Barrier Factors | 0.000 |
| Accessibility of Dental and Oral Health Service Facilities During the COVID-19 Pandemic | 0.000 |

One-Sample Kolmogorov-Smirnov Test, *p value > 0.05 significant

Based on Table 6, the correlation coefficient value is -0.24 with Sig. The (2-tailed) is 0.787, which means the relationship between the two variables is not in the same direction. It has a negative

correlation coefficient value and is insignificant because the Sig (2-tailed) value is more significant than 0.05 or 0.01.

Table 6. Results for Barrier Factors and Accessibility Factors for Dental and Oral Health Service Facilities During the COVID-19 Pandemic at the West Denpasar II Community Health Center

| | | | Barrier Factors | Accessibility of Dental and Oral Health Service Facilities During the COVID-19 Pandemic |
|----------------|---|-------------------------|-----------------|---|
| Spearman's Rho | Barrier Factors | Correlation Coefficient | 1.000 | 10.024 |
| | | Sig. (2-tailed) | . | 0.787 |
| | | N | 134 | 134 |
| | Accessibility of Dental and Oral Health Service Facilities During the COVID-19 Pandemic | Correlation Coefficient | -0.024 | 1,000 |
| | | Sig. (2-tailed) | 0.787 | . |
| | | N | 134 | 134 |

Spearman's Rank Correlation Test

* > 0.05 = not significant relationship

-0.024 = the relationship between the two variables is not in the same direction

DISCUSSION

Based on the research conducted, respondents were given five characteristics, namely age characteristics, gender characteristics, education level characteristics, job characteristics and socioeconomic characteristics. The characteristics of the respondents: the majority of respondents in the study fell into

the adult age category (26-61 years) with 111 respondents (82.8%), and the minority of respondents came from the teenage age category (13-17 years) with one respondent (0.7%). These results align with research by Stennet and Tsakos in 2022. Most respondents who accessed dental and oral health service facilities came from adult age characteristics.

Based on gender characteristics, the results showed that the majority of respondents were female, 94 respondents (70.1%) compared to 40 respondents who were male (29.9%); this result is in line with research from Alzubaidi et al. in 2022¹, where the majority of respondents who access dental and oral health service facilities are female.

Based on the characteristics of educational level, the results of the analysis showed that the majority of respondents had a high school/D1 education level 72 respondents (53.7%) and a minority of respondents had no school/not completed elementary school education of one respondent (0.7%), this is in line with research conducted by Pasiga in 2020¹¹ that the majority of respondents who accessed dental and oral health service facilities had undergraduate or high school education.

Based on job characteristics, the results showed that the majority of respondents had other jobs, as many as 64

respondents (47.8%), and minority respondents had civil servant/pension jobs as many as one respondent (0.7%). It aligns with research conducted by Febriane Balafif et al. in 2021¹², which found that most respondents who access dental and oral health service facilities have jobs.

Based on socioeconomic characteristics, the results showed that most respondents had a socioeconomic level equal to the minimum wage, 87 respondents (64.9%), and a minority of respondents had a socioeconomic level above the minimum wage, 17 respondents (12.7%). It is reinforced by research conducted by J. Akram et al. in 2020, where the majority of respondents who accessed dental and oral health service facilities had an average per capita income of or equal to the minimum wage.⁹⁻¹³

Table 3 describes the obstacles to the accessibility of dental and oral health service facilities at the West Denpasar II Community Health Center. The results show that of the 134 respondents, the majority fell into the hampered category, namely 93 respondents (69.4%), and the minority of respondents fell into the moderately hampered category, two respondents (1.5%). Respondents' obstacles in accessing dental and oral health service facilities are influenced by several things, such as the distance from home to the health

centre, the time taken, and whether or not transportation is available. This theory follows Freeman in 2006¹ the accessibility of dental and oral health service facilities are influenced by lack of access. The costs incurred to access dental and oral health service facilities can also hinder respondents' accessibility.

Based on Table 4, the distribution of accessibility factors for dental and oral health service facilities during the COVID-19 pandemic shows that the majority of respondents fall into the fairly easy access category, 72 respondents (53.7%), and the minority of respondents fall into the difficult access category, seven respondents (52%). This aligns with research conducted by Stennett and Tsakos in 2022⁹, namely, the limited accessibility of dental and oral health services during the COVID-19 pandemic. Limited access to dental and oral health services during the COVID-19 pandemic is influenced by several things, such as costs incurred, restrictions during the pandemic, economics, and taste. Afraid. Research conducted by Febriane Balafif et al. in 2021 showed that the community's limited accessibility to dental and oral health service facilities during the COVID-19 pandemic was due to restrictions or fear of the public accessing dental and oral health service facilities.^{9,12,14}

Table 6 shows that the barrier

factors and the accessibility factors for dental and oral health services during the COVID-19 pandemic at West Denpasar II Community Health Center do not have a strong relationship because they have a correlation coefficient of -0.024 and are not significant because they have a Sig value. (2-tailed) of 0.787, where this value is more significant than 0.05 or 0.01. Apart from that, based on the research results, the two variables have a unidirectional relationship, meaning that if the barrier factor variable increases, the accessibility variable for dental and oral health service facilities during the COVID-19 pandemic decreases. The results align with those of Dwi et al. (2016), namely that if the barrier factor increases, the level of accessibility of health service facilities decreases and vice versa. Apart from that, the result followed Agyekum and Tuglo in 2023. The researchers stated that there was a drastic reduction in dental and oral health service facility visits due to obstacles in the form of fear from patients when accessing service facilities Dental and oral health.^{5,15}

CONCLUSION

Based on the result, there were obstacles in the accessibility of dental and oral health service facilities during the COVID-19 pandemic at the West Denpasar II Community Health Center, and there is

no influence between the COVID-19 pandemic and obstacles in the accessibility of dental and oral health service facilities at the Community Health Center. West Denpasar II.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest in this research.

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